

ANNUAL REPORT FOR YEAR ENDED SEPT. 30, 1968  
LORNEX MINING CORPORATION LTD.







The directors are pleased to submit this report on the activities and financial position of the Company for the fiscal year ended September 30, 1968.



# LORNEX MINING CORPORATION LTD.

## OFFICERS

Chairman of the Board	- - - - -	EGIL H. LORNTZSEN
President and Chief Executive Officer		ROBERT D. ARMSTRONG
Vice-President and Director	- - - - -	E. B. GILLANDERS
Treasurer	- - - - -	H. A. PAKRUL
Secretary	- - - - -	C. WILLIAM M. BURGE

## DIRECTORS

GEORGE R. ALBINO, Clarkson  
 WILLIAM A. ARBUCKLE, Montreal  
 ROBERT D. ARMSTRONG, Toronto  
 WALTER P. ARNOLD, Toronto  
 C. WILLIAM M. BURGE, West Vancouver  
 E. B. GILLANDERS, Crescent Beach  
 NEIL B. IVORY, Montreal  
 EGIL H. LORNTZSEN, Vancouver  
 A. DAVID ROSS, West Vancouver  
 J. ARTHUR SADLER, Toronto  
 ISAAC SHULMAN, Vancouver

## Executive Office

120 Adelaide St. W. - - - - - Toronto

## Head Office

580 Granville St. - - - - - Vancouver

## Project Office

P.O. Box 430 - - - - - Ashcroft

## Principal Bankers

Canadian Imperial Bank of Commerce - - - - - Vancouver

## Solicitors

Fasken & Calvin	- - - - -	Toronto
Clark, Wilson & Company	- - - - -	Vancouver

## Auditors

Coopers & Lybrand - - - - - Vancouver

## Registrar and Transfer Agent

National Trust - - - - - Vancouver

## Shares Listed

Vancouver Stock Exchange

## The Annual Meeting

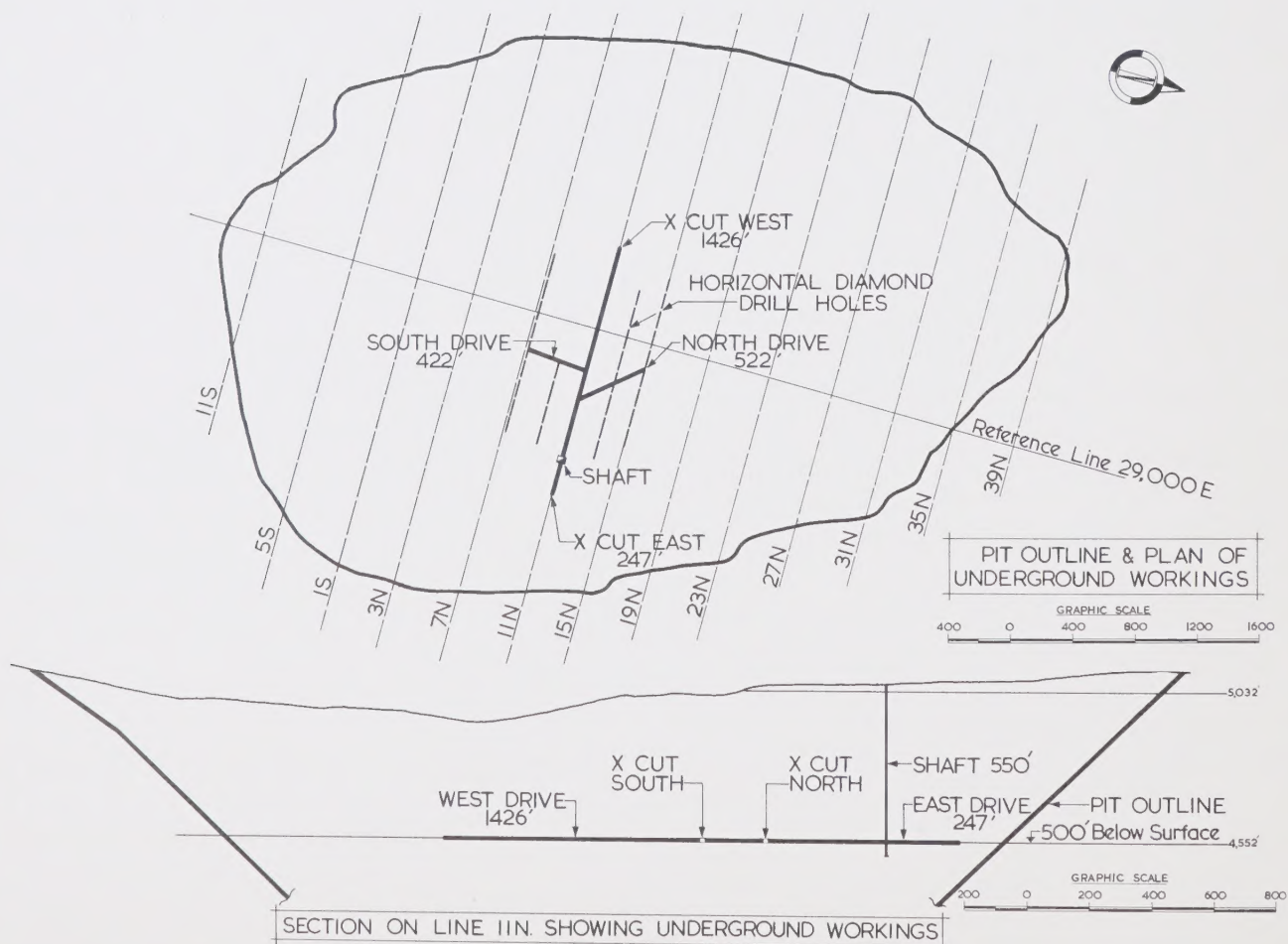
10:30 a.m., Thursday, December 5, 1968  
 Vancouver Island Room, Hotel Vancouver  
 Vancouver, British Columbia



Underground at Lornex, test material is dumped from ore car for removal to surface pilot mill.



Headframe and cross-section of open pit. Approximately 19,600 tons of sample rock were obtained from pit and underground workings during Phase II assessment program.







## Directors' Report to the Shareholders

The assessment program referred to as Phase II in last year's report was completed substantially as planned in August, 1968. The total cost of the investigation program including Phase II but excluding the cost of mineral claims was \$6,763,610 of which \$2,263,331 was expended in the year ended September 30, 1968. The general scope of the underground program is illustrated schematically in the front section of this report.

### BECHTEL REPORT:

Following completion of this work Bechtel Corporation was requested to conduct a review of the program and prepare a report of its findings.

The Bechtel assignment did not include determinations as to certain factors which are the responsibility of the Company's directors. These are:

- Marketing and pricing levels for the copper and molybdenum concentrates.
- Financing arrangements and associated costs.

- Acceptability of the indicated rate of return on investment.

The report has been received. Since the foregoing factors have not been considered by Bechtel, the report, which in effect constitutes a feasibility study, is entitled "Lornex Project Evaluation".

Principal statements as to the factors that would apply if the project goes forward as described in the evaluation are summarized as follows:

- The total quantity of ore was calculated from the selected mining plan at approximately 293,000,000 tons. The average copper grade as mined was determined to be 0.427 percent and the average molybdenum grade 0.014 percent. This reserve was based on a copper cut-off grade of 0.26 percent and working pit slopes averaging 25 degrees. The working waste to ore ratio is 0.862 to 1. This ratio includes 35,000,000 tons of oxidized material which will be stockpiled. Overburden, consisting of 51,000,000 cubic yards of

## LORNEX MINING CORPORATION LTD.

glacial material, is not included in the waste to ore ratio.

- The ore reserve was calculated from grades shown by cores from surface holes. There were variations between the grades of surface core drill holes and grades derived from the underground program. The extent of the variations and the conclusions drawn therefrom are summarized below:

- ● The average grade for the ten underground diamond drill holes totalling 5,439 feet was higher by 8.8 percent for copper and 4.5 percent for molybdenum than the assigned grade derived from surface core drill holes.

- ● The average grade obtained from the bulk sampling of some 13,000 tons taken from the 1,674 feet of crosscut was higher by 9.9 percent for copper and 13.8 percent for molybdenum.

- ● The results of grade trends developed by Lornex were evaluated in the Behre Dolbear report on geology and ore reserves. The following quotation from this report discusses the comparison

between the average grades of copper and molybdenum for the bulk samples from the crosscut versus the grade trend values derived from surface core holes:

“These lower grades in the core holes probably reflect loss of copper and molybdenum minerals during drilling since core recovery on the average was only 94.3 percent by length (probably less by weight).

The conclusion is drawn from these figures that the grades shown by the cores from surface holes have not overvalued the deposit but on the contrary are conservative. It would not be sound practice to up-grade the average grade of the deposit on the basis that the crosscut grades are a certain percent higher than those of the surface core holes cutting area. However, assuming that the crosscut has an area of influence extending to 400 feet to the north and to the south (that is, to the limits of the horizontal core holes on the crosscut level) and up to 200 feet vertically above and below, then it would have an influence on the grades of about one-third of the tonnage to be mined in the first five years.”





- Development of the mine prior to commencing production will require removal of 29,000,000 cubic yards of overburden, 6,300,000 tons of waste rock having a copper content below 0.26 percent and 900,000 tons of ore. This work will expose approximately 6,500 lineal feet of ore faces required for production mining.

- Pilot plant tests to develop economical methods for recovery of mineral values in the oxidized ore were unsuccessful. This material will, therefore, be stockpiled for possible future treatment.

- The project is designed to process an average of 38,000 short tons of ore per day. When operating on an average ore and at design capacity, the plant will produce annually 162,000 short tons of copper sulphide concentrates and 2,300 short tons of molybdenite concentrates over the approximate 21-year life of the ore body contemplated by the selected mining plan. Processing facilities are provided for the conversion of molybdic oxide in varying amounts, depending upon market requirements.

- Copper recovery is expected to average 92

percent and molybdenum recovery to average about 65 percent as molybdenite and 63 percent when further processed to molybdic oxide. Grade of copper concentrates will be approximately 33.2 percent copper. Grade of molybdenite concentrates will be approximately 54 percent molybdenum and that of molybdic oxide concentrates 62 percent molybdenum.

- The total capital requirement for the project including provision for working capital requirements, financing costs and interest during construction is estimated to be \$120,000,000. Expenditures on the investigation programs and on mining properties have totalled \$7,244,000; the balance of additional capital required is therefore estimated to be \$112,756,000. This includes an allowance for escalation of costs to the date of plant startup, which is considered to be the date production reaches 60 percent of the nominal rate. During the project life an additional \$30,500,000 will be required for equipment replacement.

- The overall schedule for engineering, construction and mine development is 32 months.

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- Average operating costs for the production of the copper sulphide concentrates and the molybdenite concentrates are estimated to be \$1.56 per short ton of material processed subject to annual variations of up to \$0.13 per ton due to changes in the stripping ratio, hauling costs and overburden removal. The estimated operating cost representative of the majority of the operating years is \$1.53 per short ton. These costs are based on wage rates and material prices which it is estimated will be prevailing towards the end of 1971.

- Bechtel has calculated that the discounted rate of return on the basic investment of \$110,116,000 required for the project is 10.6 per cent and that recovery of this investment will be accomplished in approximately nine years following start of construction. These calculations give effect to the foregoing data and to the following additional elements:

- In calculating the rate of return, it was assumed that all capital is available without interest. The base capital figure used was therefore \$110,116,000. This comprises the estimated total

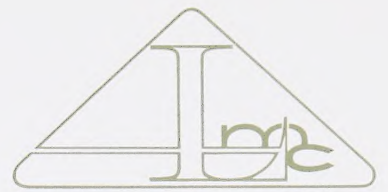
capital requirement of \$120,000,000 reduced for purposes of this calculation by estimated costs of financing and interest during construction totalling \$9,884,000. The return was calculated on an annual period basis and considers capital expenditures starting with Phase I in 1965.

- When a financing plan is established, adjustments must be made for interest payments, financing charges and the impact of interest on taxes.

- The tax calculation assumes that the full three-year exemption on Federal Income Tax and the current depletion allowances will be continued.

- Bechtel was directed to assume for purposes of this calculation that the copper production will be sold as concentrate at an average price of \$0.412 per pound (\$0.38 U.S.) and that the molybdenum would be sold as molybdenite concentrate at an average price of \$1.833 per pound (\$1.69 U.S.). In calculating the revenue from sales of these products both prices were adjusted for estimated marketing costs, transport and smelting and refining charges where applicable. Contracts





have not been negotiated which will assure that these prices can be obtained.

#### CONTROL

Rio Algom Mines Limited and The Yukon Consolidated Gold Corporation Limited have advised Lornex that at September 30, 1968 their holdings in the aggregate of Lornex shares were 2,725,950 shares. This represented 60.3% of the total outstanding shares of Lornex. Rio Algom and Yukon have also advised the Company that they have entered into an agreement relating to certain of their Lornex shareholdings which effectively joins their holdings in order to maintain voting control of Lornex and to provide continuity of management by Rio Algom until at least December 31, 1972.

#### STATUS OF PROJECT

Under its agreement with the Company, Rio Algom has the right, at its sole discretion, to decide if the Lornex Mineral Claims should be brought into production. If it makes this decision Rio Algom is obligated to use its best efforts to arrange such further financing as Rio Algom may deem advisable for this purpose on the best available terms.

Rio Algom has advised the Company's Board of Directors that it has not at this date reached a decision as to whether the Lornex Mineral Claims should be brought into production. However, Rio Algom has informed the Board that it is actively engaged in discussions with potential purchasers of the Lornex products and with financing sources and is considering the Bechtel report and other relevant factors.

On behalf of the Board,

R. D. ARMSTRONG,  
President.

November 8, 1968.





## LORNEX MINING CORPORATION LTD.

### Auditors' Report

To the Shareholders of  
Lornex Mining Corporation Ltd.:

We have examined the balance sheet of Lornex Mining Corporation Ltd. as at September 30, 1968, and the statements of deferred exploration, development and administration and source and disposition of funds for the year then ended. Our examination included a general review of the accounting procedures and such tests of the accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion these financial statements present fairly the financial position of the company as at September 30, 1968, and the results of its operations for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

COOPERS & LYBRAND  
Chartered Accountants.

Vancouver, British Columbia  
October 28, 1968



# LORNEX MINING CORPORATION LTD.

(Incorporated under the laws of British Columbia)

## BALANCE SHEET AS AT SEPTEMBER 30, 1968

### Assets:

#### CURRENT:

	1968	1967
Cash .....	\$ 121,719	\$ 207,194
Short term investments, at cost, and deposits ..	304,197	2,506,163
Accounts receivable .....	10,997	38,209
	<u>436,913</u>	<u>2,751,566</u>

#### FIXED, at cost (notes 1 and 2):

Plant and equipment .....	1,382,497	1,319,518
Mining properties .....	471,000	471,000
	<u>1,853,497</u>	<u>1,790,518</u>

#### OTHER:

Deferred exploration, development and administration, at cost (notes 1 and 3) .....	5,381,113	3,180,761
Incorporation and organization costs .....	2,601	2,601
	<u>5,383,714</u>	<u>3,183,362</u>
	<u>\$7,674,124</u>	<u>\$7,725,446</u>

### Liabilities and Shareholders' Equity:

#### CURRENT:

Accounts payable and accrued liabilities .....	\$ 225,041	\$ 269,262
Due to Rio Algom Mines Limited .....	47,730	78,387
Due to Rio Tinto Canadian Exploration Limited .....	29,583	6,027
	<u>302,354</u>	<u>353,676</u>

#### SHAREHOLDERS' EQUITY:

##### Capital stock —

##### Authorized:

5,000,000 shares with a par value  
of 50¢ each

##### Issued:

900,000 shares for mining properties .....	450,000	450,000
3,621,321 shares for cash .....	1,810,660	1,810,660
<u>4,521,321</u>	<u>2,260,660</u>	<u>2,260,660</u>

Premium less discount on shares issued for cash .....	5,111,110	5,111,110
	<u>7,371,770</u>	<u>7,371,770</u>
	<u>\$7,674,124</u>	<u>\$7,725,446</u>

Approved on behalf of the Board:

W. A. ARBUCKLE, Director.

R. D. ARMSTRONG, Director.



# LORNEX MINING CORPORATION LTD.

## STATEMENT OF DEFERRED EXPLORATION, DEVELOPMENT AND ADMINISTRATION

FOR THE YEAR ENDED SEPTEMBER 30, 1968

	1968	1967
<b>Balance, beginning of year</b>	<u>\$3,180,761</u>	<u>\$1,156,180</u>
Add expenditures during the year —		
Exploration and development:		
Surface drilling and exploration	179,868	698,784
Shaft sinking and lateral development	454,919	322,968
Pilot plant operation	350,422	207,806
Open pit operation	—	78,870
Technical and economic studies	774,253	256,952
Camp, cookhouse, utilities and vehicles	153,774	150,809
Miscellaneous on site costs	78,328	53,043
	<u>1,991,564</u>	<u>1,769,232</u>
General and administration	200,233	168,060
Vancouver office and corporate expenses	90,891	104,101
	<u>2,282,688</u>	<u>2,041,393</u>
Less interest (net)	82,336	16,812
Net expenditure for the year	<u>2,200,352</u>	<u>2,024,581</u>
<b>Balance, end of year</b>	<u><u>\$5,381,113</u></u>	<u><u>\$3,180,761</u></u>





# LORNEX MINING CORPORATION LTD.

## STATEMENT OF SOURCE AND DISPOSITION OF FUNDS

FOR THE YEAR ENDED SEPTEMBER 30, 1968

Source of funds:	1968	1967
Issue of capital stock for cash .....	\$ —	\$5,559,477
<b>Disposition of funds:</b>		
Expenditures for plant and equipment .....	62,979	1,071,994
Expenditures for deferred exploration, development and administration .....	2,200,352	2,024,581
Payments made to purchase mining properties .....	—	9,000
	<u>2,263,331</u>	<u>3,105,575</u>
<b>Increase or (decrease) in working capital .....</b>	<u><u>\$ (2,263,331)</u></u>	<u><u>\$2,453,902</u></u>
<b>Working capital at end of year .....</b>	<u><u>\$ 134,559</u></u>	<u><u>\$2,397,890</u></u>

# LORNEX MINING CORPORATION LTD.

## NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 1968

1. The amounts shown for fixed assets and deferred exploration, development and administration represent costs to date and are not intended to reflect present or future values.
2. Mining properties were acquired for the issue of 875,000 shares of capital stock valued at \$437,500 together with \$33,500 cash. Mining properties for which 25,000 shares of capital stock were issued valued at \$12,500 were abandoned and the cost thereof has been charged to deferred exploration, development and administration.
3. To maintain the option which the company holds in respect of the "Skeena property", the company is required to fulfil work commitments of \$250,000, consisting of \$100,000 prior to May 31, 1969 and a further \$150,000 prior to May 31, 1970. The terms of this option agreement further provide for payment of 5% of the net smelter returns up to \$3,000,000. In the event that the company does not bring these claims into production prior to May 31, 1972, the company shall pay the sum of \$2,000 per month until the claims are brought into production or until May 31, 1974, whichever shall be the earlier.
4. Under the terms of an agreement dated May 17, 1965 the company agreed that if certain mining properties were brought into production it would pay Skeena Silver Mines Limited 5% of the net smelter returns up to \$500,000 with minimum annual payments of \$15,000 to commence on May 31, 1971.
5. During the year ended September 30, 1968 the aggregate direct remuneration paid or payable by the company to the directors and senior officers of the company was \$49,519, including remuneration to a director of \$9,600.







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